IN THE CLAIMS

Claim 49 (presently amended): A method of screening a combinatorial library of materials comprising:

mechanically perturbing an array of a plurality of materials by contacting at least two of the materials simultaneously with probes; and

monitoring, with a sensor, a force exerted by each of the materials in response ~~the response of the materials~~ to the mechanical perturbations.

Claim 50 (presently amended): The method of claim 49, wherein the monitoring step comprises ~~the response of the materials to the mechanical perturbations includes~~ measuring, with the sensor, forces exerted on the probes by the materials ~~material samples~~ as functions of displacement of a portion of the material or displacement of the probe ~~between the probes and the materials~~.

Claim 51 (presently amended): The method of claim 49, wherein the monitoring step comprises ~~the response of the materials to the mechanical perturbations includes~~ measuring, with the sensor, forces exerted on the probes by the materials ~~material samples~~ as functions of time.

Claim 52 (presently amended): The method of claim 49, further comprising relating the monitored force ~~response of the array of materials~~ to flexure, uniaxial extension, biaxial compression, shear, indentation, stress and strain at failure, tack, loop tack, melt flow index, Young's modulus, hardness, viscosity, storage modulus, ~~or~~ loss modulus or combinations thereof of the material.

Claim 53 (presently amended): The method of claim 49, wherein ~~the method is capable of screening~~ at least twelve materials are simultaneously mechanically perturbed.

Claim 54 (presently amended): The method of claim 49, wherein ~~the method is capable of screening~~ at least forty-eight materials are simultaneously mechanically perturbed.

Claim 55 (presently amended): The method of claim 49, wherein ~~the method is capable of screening~~ at least ninety-six materials are simultaneously mechanically perturbed.

Claims 56-58: Canceled

Claim 59: (new): The method of claim 49, wherein the probes comprise a test fixture.